Metadata form FINAL 8/7/98

Data Used in the Clean Water Action Plan Unified Watershed Assessment

Name of Data Layer: **SAV Population Health (abundance)**

Definition (General Description): Submerged aquatic vegetation (SAV) population health is determined by measuring the extent of areas with SAV growth each year. SAV coverage is assessed from aerial surveys and quantified by Chesapeake Bay Program segments using digital techniques. These coverage estimates are compared to the SAV Restoration Goals to determine progress towards restoration of healthy SAV populations. Each tributary has its own SAV Restoration Goals (in hectacres) which are based on the amount of area expected to be available for SAV growth, determined by water depth, physical characteristics, and historic occurrence of SAV.

Data Source: VIMS 1996 SAV aerial survey

Data Type: Condition _X_ Stressor ____ Vulnerability ____ Trend ____ Growth ____
Other_____

Method of Calculation: Using the 1996 aerial survey results, we divided the area found in 1996 by the Tier III target (restoring SAV to 2 meters depth) area. This value was multiplied by 10 to yield a value between 0 and 10. If this value was less than 1, 1 was used as the index, as INRA/UWA requires a non-zero value. With a few exceptions (see "Methods used for Tidal Water Quality, SAV, Benthic IBI and Fish IBI data consolidation for the INRA/UWA project" for more information), the mean of the indices for the bay segments that were pooled together was used.

For the UWA, watersheds are placed in Category I (needs restoration) if they have SAV coverage of 10% or less of the Tier III target area (index score of 1) Watersheds are placed in Category II (needs preventative action) if they have SAV coverage of more than 10% of the Tier III target area (index score greater than 1). Because no system is considered to be pristine, none of the watersheds are placed in Category III (pristine watersheds).

Watershed Scale: Tributary Strategy Region[1] ____ USGS 8 Digit ____ MD 6 Digit ____
MD 8 Digit _X_ MD 12 Digit ____ Adaptable to Any Scale ____Other For some watersheds, the index score is an extrapolated value due to the nature of the measurements. SAV area goals are determined for Chesapeake Bay Program segments, which include more than a single 8-digit watershed. In such cases, all 8-digit watersheds that are included within a given Bay Segment are given the same SAV Population Health Score.

Data Custodian: VIMS/ MD DNR-TEA

[1]The Youghiogeny watershed and the Coastal Bays region are considered to be Tributary Strategy Regions for the purposes of this program

Clean Water Goal: Yes ____ No _X_
If Yes: Description of Goal _____

Other Natural Resource Goal: Yes _X_ No ____
If Yes: Benchmark Goal ____ Relative Goal _X_
If Benchmark Goal - Description of Benchmark _____

Assumptions _____
_____

Comments: *Problems encountered with INRA SAV Indices*:

- We are unable to resolve SAV coverage to watershed level, as most individual watersheds have no data. Future analyses may improve resolution in areas that have multiple stations per bay segment.

- A fundamental, not easily resolved problem deals with data obtained in tributaries that have multiple bay segments (Patuxent, Potomac, and Choptank Rivers) as the bay segments upstream influence those downstream. For this analysis, we chose to obtain a mean for all segments and apply this value to all sheds draining into the tributary. There has to be a better way to do this. Also how should we handle data collected from the mainstem of the Chesapeake Bay?

References: see "Methods used for Tidal Water Quality, SAV, Benthic IBI and Fish IBI data consolidation for the INRA/UWA project" for more information